# SatNet

## Transforming the NASA Earth Observations Users Experience

By

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SCENE IN: NASA Logo

NATHAN

SHOT: Sun rises over view of earth exosphere with satellite passes by

NASA's earth orbiting satellites have been providing valuable scientific data to researchers since 1958. This information can be applied to a number of important issues, from climate change to disaster mitigation.

SHOT: Satellite Images of Las Vegas, Farmland, Antartica, and Yellowstone National Park

While Earth Observing System satellites provide a wealth of information, the experience of locating, downloading, and processing satellite data is so cumbersome that only a small number of experts apply this resource.

SHOT: DEVELOP Logo with orbiting Earth

SHOT: Flyover of satellite Hampton Roads Area

As DEVELOP interns at Langley Research Center, we have created a solution to expand the EOS user community and improve the website service standards of EOS data centers.

SHOT: SatNet Logo with nighttime earth rotating behind

Our project, Satellite Network, or SatNet, bridges the gap between NASA satellite data and its potential users.

ANDREW

SHOT: Powerpoint shots of growing multitude of DAAC sites

Users have to navigate over a dozen archives to access EOS satellite information. Those with limited remote sensing experience find navigating these sites extremely difficult.

SHOT: Screen shots of different GIS software

After they acquire their information, users then have to process the data in GIS software programs to create their satellite image. This software is highly technical, and often expensive.

SHOT: NASA stock footage of satellite observation rooms

Many users lack the training necessary to properly import, format, and process satellite data in these programs.
These obstacles deter potential users from applying satellite data to their areas of interest and keep EOS from maximizing its potential to assist society.

PUNAL

SHOT: Screenshot of SatNet mainpage

SatNet is an online, interactive hub that is easy to navigate for novice users. It provides a single location to connect to satellite information that streamlines locating, accessing and processing satellite information.

SHOT: Video of navigation of globe and menus

The first feature of SatNet is our interactive globe highlighting 16 EOS satellites. Selecting one of these provides details about the platform and mission.
Below the globe, users can access satellite information via our menu, separated into topics, sensors, data portals, and tutorials. The menu directly links users to the appropriate data portal and provides tutorials that will guide the user through each step of data access. Tutorials for GIS software are also available to assist users in creating their imagery.

SHOT: Powerpoint slide of Timeline

After an initial beta testing period with NASA DEVELOP interns, we will launch an online version of SatNet for the general public.

EMMA

SHOT: Aquarius satellite orbiting around earth

SatNet will increase awareness of the many potential applications of EOS.

SHOT: Soil Moisture, Sea Ice, Ozone, Ocean currents, Weather, and Disaster animation clips

Soil moisture and precipitation information can indicate agricultural health.
Sea ice observations can show changes in global climate.
Ozone and aerosol measurements help us understand atmospheric dynamics.
Ocean currents and sea surface salinity provide insight on marine

ecosystem.
Weather imagery and 3D cloud structure allows researchers to monitor severe weather
events.
Images of fires, volcanoes, hurricanes, and tsunamis assist in understanding and preparing for future disasters.

PUNAL

SHOT: Animations of data provided by CERES, ASTER, MISR, MODIS, and MOPITT.

The applications of remote sensing are far-reaching, but this information is only employed by a small percentage of researchers.

SHOT: Caption of quote with shot of earth rising

"EOS…is committed to bringing program information and resources to scientists and the general public alike."
SatNet serves as a foundation in expanding the EOS user community and highlighting the vast application areas of earth observations.

SHOT: Credits
SCENE OUT: Group Picture